

**MICHIGAN ENERGY CREDITS**  
**Renewable Energy Credits**  
**Energy Optimization Credits**  
**Advanced Cleaner Energy Credits**

- **Renewable Energy Standard Overview:** Michigan’s Renewable Energy Standard is part of 2008 PA 295<sup>1</sup>, titled the Clean, Renewable and Efficient Act (Act). The Renewable Energy Standard requires Michigan electric providers to achieve a retail supply portfolio that includes at least ten percent renewable energy by 2015. The Act also includes annual interim compliance requirements starting in 2012. Electric providers demonstrate compliance with renewable energy requirements through the purchase and/or production of Renewable Energy Credits (RECs).
- **Michigan Renewable Energy Certification System<sup>2</sup> (MIRECS):** The MPSC established MIRECS to issue, track, and enable retirement and trading of RECS, Advanced Cleaner Energy Credits (ACECs), and Michigan Incentive Credits (ICs). MIRECS users will use the system to verify compliance with the Michigan Renewable Energy Standard.
- **Renewable Energy Credit Definition:** A REC is created for every MWh of electricity generated by a renewable energy system.
  - A REC can be separated from the associated energy and traded, sold, or otherwise transferred. It may also be “bundled” with the energy and handled in the same manner.
  - A REC expires after it has been used to comply with any renewable energy credit standard or after a period of three years, whichever comes first. (However, the same REC may be used to comply with both a federal standard and the Michigan Renewable Energy Standard.)
  - A REC expires if used to comply with the Energy Optimization Standard.
- **Renewable Energy Resources:** RECs can come from, but are not limited to, facilities that are fueled by: biomass, solar and solar thermal energy, wind energy, kinetic energy of moving water,<sup>3</sup> geothermal energy, municipal solid waste, and landfill gas.

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<sup>1</sup> <http://www.legislature.mi.gov/documents/2007-2008/publicact/pdf/2008-PA-0295.pdf>

<sup>2</sup> <http://www.mirecs.org>

<sup>3</sup> This can include waves, tides, currents or water released through a dam. This does not include “a hydroelectric pumped storage facility or a hydroelectric facility that uses a dam constructed after the effective date Act 295 unless the dam is a repair or replacement of a dam in existence on the effective date of Act 295 or an upgrade of a dam in existence on the effective date of Act 295 that increases its energy efficiency.”

- **Renewable Energy Credit Substitution:** An electric provider may substitute up to 10% of its REC requirement with any combination of Advanced Cleaner Energy Credits (ACECs) or Energy Optimization Credits (EOCs). With the exception of ACECs from industrial cogeneration, MPSC approval through a contested case hearing is required for all substitutions.
  - One EOC may be substituted for one REC.
  - One ACEC generated from plasma arc gasification or industrial cogeneration may be substituted for one REC.
  - For all other types of ACEC facilities, 10 ACECs may be substituted for one REC.
  
- **“Incentive” Renewable Energy Credits:** The Act provides for a variety of incentive RECs that are in addition to the base REC earned for every MWh of electricity produced from renewable energy resources.
  - Two additional RECs for solar generated electricity.
  - 1/5 REC for non-wind, on-peak generation.
  - 1/10 REC for systems constructed in Michigan.
  - 1/10 REC for systems constructed using Michigan labor.
  - 1/5 REC for each MWh of renewable electricity generated during off-peak hours and stored using advanced electric storage or pumped storage and used during peak hours.
  
- **Public Utility Regulatory Policies Act of 1978:** PURPA allowed small power producers using renewable energy facilities that generate electricity to enter into power purchase agreements with rate regulated electric providers as a way to promote renewable energy. If these PURPA contracts do not contain specific provisions for RECs; one REC remains with the small power producer and four RECs are transferred to the electric provider for every five RECs generated.
  
- **Energy Optimization Standard Overview:** PA 295 contains an Energy Optimization Standard that requires electric providers to achieve annual retail energy sales reductions beginning in 2009. These reductions begin at 0.3% and increase annually to 1.0% for 2012 and thereafter.
  
- **Energy Optimization Credit (EOC) Definition:** One EOC is granted for each MWh of annual energy savings resulting from an electric provider’s energy optimization programs.
  - An EOC expires when used to comply with the energy optimization performance standard or when substituted for a REC.
  - An EOC may not be traded, sold, or transferred.
  - Energy savings generated by self-direct customers<sup>4</sup> count directly towards the electric provider’s required EOCs.

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<sup>4</sup> Self-direct customers are large energy users (2 MW single site or 10 MW aggregated) that choose to implement their own energy optimization program instead of participating in their provider’s. Their

- **EOC Carry Over:** Excess EOCs may be carried over to meet no more than 1/3 of the next year's energy optimization standard.
  - EOCs may not be carried over if a financial incentive is given for exceeding the energy optimization standard for that year.
  - Excess EOCs expire if not substituted for RECs or carried over.
  - EOCs that have been carried over expire that year.
- **EOC Certification and Tracking Program:** The Act requires the MPSC to establish a program to certify and track the granting, expiration, and substitution of EOCs. MPSC staff will be administering the program, including the certification of savings from self-direct customers.
- **EOC Substitution:** For years after 2012, an electric provider may make substitutions to meet up to 10% of the required number of EOCs. Substitutes may be any combination of: RECs from systems constructed after October 6, 2008; ACECs, except when generated by industrial exhaust gas or flue gas; or load management that reduces overall energy use. MPSC approval through a contested case hearing is required for all substitutions.
  - 1 REC may be substituted for 1 EOC
  - 1 ACEC from plasma arc gasification may be substituted for 1 EOC
  - 4 ACECs from other sources may be substituted for 1 EOC
- **Advanced Cleaner Energy Credit (ACEC) Definition:** PA 295 allows that one ACEC is granted for every MWh of electricity generated from an advanced cleaner energy system. There is no requirement to generate or obtain ACECs, but they may be used to help meet the renewable energy and energy optimization standards.
  - An ACEC may be traded, sold, or otherwise transferred.
  - An ACEC expires when substituted for a REC or EOC.
  - An ACEC expires 3 years after generation.
- **ACEC System Requirements**
  - ACECs generated by facilities in existence on January 1, 2008 cannot make up more than 7% of the electric provider's required RECs.
  - ACECs are produced by a gasification facility,<sup>5</sup> an industrial cogeneration facility,<sup>6</sup> a coal fired electric generating facility that captures and sequesters 85% of the carbon dioxide, or an electric generating facility using technology not in operation on October 6, 2008.

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required energy savings percentage is the same as the provider's and counts towards the provider's requirement.

<sup>5</sup> A gasification facility uses a thermochemical process that does not use direct combustion to produce synthesis gas from carbon-based fuel or a combined synthesis gas and with or without methane to generate electricity for commercial use

<sup>6</sup> An industrial cogeneration facility is one that generates electricity using thermal energy, exhaust gas, or flue-gas that is the by-product of industrial or manufacturing processes which would have otherwise been wasted.

- If a facility uses advanced cleaner energy technology and another technology that doesn't qualify, the ACECs earned shall be on a percentage basis.
  - If a facility qualifies for both ACECs and RECs, only one type will be granted at the owner's option.
- **ACEC Certification and Tracking Program:** The Act requires the MPSC to establish a program to certify and track the transfer of ACECs. ACECs will be certified and tracked using the MIRECS system.